REMARKS

Claims 1-14, and 27-29 are pending in the present application. Claims 15-26 were canceled; and claims 1, 6-8, 9, and 10 were amended. New claims 28 and 29 were added to the application. Claims 1 and 10 were amended to correct an antecedent basis problem, in which "an image" should read as "the image". These amendments to claims 1 and 10 were not made in response to any art rejection and do not change the scope of the claims.

Applicants thank the examiner and his supervisor for the telephone conference on Wednesday, April 2, 2003. Applicants would like for the examiner to consider the specific arguments set forth below:

I.   35 U.S.C. § 103, Obviousness, Claims 1-6, 10-14, and 27

The examiner has rejected claims 1-6, 10-14, and 27 under 35 U.S.C. § 103 as being unpatentable over Hunt et al, United States Patent Number 5, 764,235 ("*Hunt*"). This rejection is respectfully traversed.

In rejecting the claims, the examiner stated the following:

> For claim 1, Hunt discloses a method in a server (102, Fig. 1A) for serving an image from the server to a client (104, Fig. 1A), comprising the steps of: receiving a client request from the client (col. 2, lines 31-52), wherein the client request specifies a set of one or more bitmap characteristics for an image transfer (col. 11, line 65 – col. 12, line 6), responsive to the client request, generating a version of an image for the image transfer that confirms to the set of specified bitmap characteristics; and serving the version of the image back to the client (col. 2 lines 47-52; col. 5, lines 7-32).
>
> Hunt fails to directly teach that at least one of the bitmap characteristics includes a number of bits per pixel. However, Hunt discloses a method for serving an image from a server to a client in which image control information from the client is used by the server to determine the data size and image quality, determined format being suitable for storing, displaying or printing an image associated with the control information received (col. 3, lines 3-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to consider that the control information sent by the client to the server for

determining a format suitable for storing, displaying or
printing an image as taught by Hunt would include
specifying a bitmap characteristic such as the number of
bits per pixel. Specifying the number of bits per pixel sets
the color depth of the image, allowing the user to control
image quality.

Office Action dated January 2, 2003, page 2-3.

The examiner bears the burden of establishing a *prima facie* case of obviousness

based on the prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972

F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The examiner has failed to establish a

prima facie case of obviousness based on the prior art, in rejecting these claims using

Hunt. Specifically, the examiner has failed to consider all of the features of the presently

claimed invention in rejecting the claims. In comparing *Hunt* to the presently claimed

invention, the claim limitations of the presently claimed invention may not be ignored in

an obviousness determination.

For example, claim 1 reads as follows:

> 1.   A method in a server for serving an image
> from the server to a client, comprising the steps of:
>   receiving a client request from the client, wherein
> the client request specifies a set of one or more bitmap
> characteristics for an image transfer, at least one of the
> bitmap characteristic including a number of bits per pixel;
>   responsive to the client request, generating a version
> of the image for the image transfer that conforms to the set
> of specified bitmap characteristics; and
>   serving the version of the image back to the client.

The step of generating a version of the image that conforms to the set of specified bitmap

characteristics in response to the client request does not appear to have been considered

by the examiner. The examiner has only stated that this feature is present. None of the

cited sections to relate to such a feature. In fact, such a feature is not taught or suggested

by this cited reference.

The mere fact that a prior art reference can be readily modified does not make the

modification obvious unless the prior art suggested the desirability of the modification.

In re Laskowski, 871 F.2d 115, 10 U.S.P.Q.2d 1397 (Fed. Cir. 1989) and also *see In re*

Fritch, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992) and *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1993). The examiner may not merely state that the modification would have been obvious to one of ordinary skill in the art without pointing out in the prior art a suggestion of the desirability of the proposed modification. In this case, the examiner has failed to point out any teaching, suggestion, or incentive for the generating step of claim 1.

"It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." *In re Hedges*, 228 U.S.P.Q. 685, 687 (Fed. Cir. 1986). When *Hunt* is considered as a whole by one of ordinary skill in the art, this cited reference teaches away from generating a version of the image in response to the client request. For example, *Hunt* teaches the following:

> As a computer-implemented method for transmitting a graphical image from a server machine to a client machine, an embodiment of the invention performs the operations of: receiving, at the server machine, a request for a graphical image from a client machine, the graphical image being stored on the server machine and having a predetermined total image size; obtaining image control information; determining an appropriate amount of data for the graphical image to be transmitted based on at least the image control information, the appropriate amount being less than or equal to the predetermined total image size; and transmitting the graphical image to the extent of the appropriate amount from the server machine to the client machine.
>
> As a computer-implemented method for transmitting a graphical image from a server machine to a client machine, another embodiment of the invention performs the operations of: receiving, at the server machine, a request for a graphical image from a client machine; negotiating between the server machine and the client machine to determine a quality-size tradeoff for the graphical image; and transmitting the graphical image to the extent of the quality-size tradeoff from the server machine to the client machine.

Hunt, col. 2, lines 31-52. As can be seen, this portion of *Hunt* teaches that a predetermined total size for the graphical image is stored on the server in which data having an amount less than or equal to the predetermined total image size is transferred to transfer the graphical image to a client. This portion of *Hunt* specifically teaches that the image is generated before the request is received. A portion, or all, of the data is sent in response to the request from the client. In contrast, the presently claimed invention specifically states that a version of the image is generated in response to the client request. *Hunt* does not generate a version of the image. Instead, *Hunt* sends portions of the data making up the image to the client.

In reality, *Hunt* is prior art recognized by the prior invention as a problem which is solved by the present invention. For example, the specification of the present invention teaches:

> Such a technique is described in U.S. Patent No. 5,764,235 to Hunt et al. In this patent, each of the client and server include a dedicated handshake process that allows the machines to first determine whether they both support the image customization functionality. If so, then the server may then use an image customization process on images to be transmitted to the client to selectively modify the amount of data and the format of the graphical image files to be sent to the client in response to a request for the image. In performing the image customization process, the server makes use of server image control data and/or client image control data. The client image control data is data or information obtained from the client that is useful in determining both the suitable amount of data and/or format for the graphical image files to be sent. Typically, such data includes user data and client system data. The user data may include user preference, intended use, or a specific quality level. The client system data includes type of compression supported, transmissions performance criteria, and equipment data (e.g., display format, printer format, or the like).
>
> While the technique illustrated in Hunt et al. reduce image transmission time and save network bandwidth, the approach has certain disadvantages. Foremost, the technique proposed by Hunt et al. envisions that a given graphical image file be processed prior to receipt of the client request. According to the patent, the image file is processed to create a modified image file that is partitioned into various additive segments. As more and more of the segments are added together, a better quality image is created. Thus, for example, a first segment can be used for displaying the image as a high quality, thumbnail size image or a low quality, feature size image. By combining this segment with another segment, the

resulting image can be used as a high quality, feature size image or a low quality, full screen size image.

Preprocessing the image in accordance with the teachings of the Hunt et al. patent effectively offsets the advantages that are otherwise achieved by sending the customized images. In particular, the generation of the custom segments consumes both processing and storage resources at the server, thus minimizing the value of the technique. In addition, the types of client image control data identified in the patent do not afford the user of the client machine sufficient flexibility to control the characteristics of the actual image transferred. The present invention addresses these deficiencies of the prior art.

Specification, page 3, line 24 – page 5, line 4.

Such a characterization is supported by *Hunt*. Specifically, Hunt discloses:

> Another advantage is that a user has a choice as to the amount of a graphical image file needed depending on an intended use for the image. For example, if images are simply being displayed in a small one inch by one inch arrangement, then only a small amount of the graphical image file need be transmitted. On the other hand, if the image is to be printed with high quality at a page-size, then a substantially larger amount of the graphical image file needs be transmitted (but this is typically still less than the complete graphical image file). In either case, less data is transmitted so less bandwidth is required and transmission time is improved. Further, in the case where the image is to be printed with picture quality on a large format, then a large amount (perhaps all) of data would be transmitted, which is very likely more data than would be conventionally available.

Hunt, col. 3, lines 47-62. Further, *Hunt* discloses:

> The modifications 504 to the graphical image file are preferably done in advance and then stored on the server machine 304 in a manner suitable for accessing the graphical image file using the variable or selectable quality versus size tradeoff.

Hunt, col. 8, lines 41-45. As can be seen, *Hunt* teaches that it is preferable to perform the modifications in advance. Thus, *Hunt* teaches away from generating a version of the image in response to a client request.

Further, *Hunt* teaches the following:

FIG. 6A is a representative diagram of a modified image
file 600 according to the invention. The modified image file
600 is segmented into a first segment C.sub.1 602, a second
segment C.sub.2 604, a third segment C.sub.3 606, a fourth
segment C.sub.4 608, and a fifth segment C.sub.5 610. The
section 602-610 are preferably encoded using a
compression technique such as fractal compression or
progressive JPEG. Each of these segments 602-610 contain
data associated with the image represented by the graphical
image file. However, each of the segments is additive to
provide greater image quality but at a cost of larger image
file size. The encoding of the segments is such that the first
segment C.sub.1 602 can itself be displayed without any of
the other segments. Then, for the next gradation in image
quality or file size, the graphical image file transmitted
would include the first segment C.sub.1 602 and the second
segment C.sub.2 604. The third segment C.sub.3 606, the
fourth segment C.sub.4 608 and the fifth segment C.sub.5
610 are likewise additive for even greater image quality or
file size. For example, in Table 1, the first segment C.sub.1
602 may be 20 KB, and the first segment C.sub.1 602 and
the second segment C.sub.2 604 may total to 100 KB.
Hence, the first segment C.sub.1 602 can be used for
displaying the image as a high quality, thumbnail size
image or a low quality, feature size image. The
combination of the first segment C.sub.1 602 and the
second segment C.sub.2 604 can be used for displaying the
image as a high quality, feature size image or a low quality,
full screen size image.

The representative diagram of the modified image file 600
illustrated in FIG. 6A is particularly suited for fractal
compression or progressive JPEG. However, more
generally, the image file can be modified 504 according to
the invention using any available compression technique or
other file size reduction technique. The invention is flexible
enough to be able to use the most appropriate compression
or other file size reduction technique for each image,
quality and size. The invention can also use different
techniques for different parts of an image.

Hunt, col. 8, line 46 – col. 9, line 15. As can be seen, *Hunt* teaches the use of a compression technique, such as a fractal, compression, or progressive JPEG, which allows for different portions of data for an image to be sent.

Although *Hunt* states that any compression technique or file reduction technique may be used, no teaching, suggestion, or incentive is present for performing these techniques in a manner in which a version of the image is created, in response to a client request no guidance is provided in *Hunt*. In other words, by generating a version of the image in response to receiving the request, the mechanism of the present invention creates this image "on-the-fly" overcoming deficiencies found in *Hunt* with respect to flexibility to control the characteristics of the image transferred.

In addition, the examiner has admitted that *Hunt* fails to teach the feature of having the image of the version generated to conform to a set of specified bitmap characteristics. The examiner has asserted that the basis for adding such a feature to *Hunt* would have been obvious. The rationale given is constructed by the examiner without the examiner pointing to any teaching, suggestion, or incentive in the prior art as to any basis for this reason. If the examiner is asserting that such a rationale would be well known to one of ordinary skill in the art under M.P.E.P. § 2144.03, applicants challenge this assertion and request that the examiner provide the evidence necessary to show that such a change would be well known or obvious. Otherwise, the examiner has merely made a modification to *Hunt* without any basis in the prior art and has failed to establish a *prima facie* case of obviousness. If the examiner is basing the rejection on personal knowledge, applicants respectfully request that the examiner provide an appropriate affidavit such that the applicants may review the affidavit and provide responding affidavits to contradict or explain if appropriate. Therefore, even though *Hunt* could be modified to include this feature, one of ordinary skill in the art would not make this modification, unless some teaching, suggestion, or incentive is present for it. The only incentive provided is that of the examiner, without pointing to where in the art one of ordinary skill in the art would have specifically considered specifying a number of bits per pixel with respect to the invention disclosed by *Hunt*.

Therefore, claim 1 is not obvious in view of *Hunt*. Further, independent claim 10 includes a similar feature. Therefore, this claim is patentable over *Hunt* for the same

reason. The other claims are dependent claims depending from one of these two independent claims. As a result, these claims are also patentable over *Hunt* for the same reasons. Further, these dependent claims teach other features not taught or suggested by the cited reference.

For example, claim 6 reads as follows:

> 6.   The method as described in Claim 1 wherein the set of bitmap characteristics is specified at the client by setting a graphical control in a graphical user interface.

Hunt teaches the following:

> ... sending a request for a graphical image to a server machine; sending image control information from the client machine to the server machine; and receiving from the server machine the graphical image of a determined amount, the ...

Hunt, col. 3, lines 2-5. Claim 6 recites the use of a graphical control to specify the characteristics. This graphical control is one of a graphical user interface as stated in the specification. Further, the claim was amended to recite this specifically to clarify the claim.

Therefore, the rejection of claims 1-6, 10-14, and 27 under 35 U.S.C. § 103 has been overcome.

II.   35 U.S.C. § 103, Obviousness, Claim 7

The examiner has rejected claim 7 as being unpatentable over *Hunt* as applied to claims 1 and 6 above, and in further view of Lo et al., United States Patent Number 5,911,044 ("*Lo*"). This rejection is respectfully traversed.

These two references cannot be combined as proposed by the examiner when the references are considered as a whole. The examiner has recited general features of the references as a reason for combining them. Although both references do transmit over a network, one of ordinary skill in the art would not look to these references and combine them when they are considered as a whole. The mere fact that both references transmit images over a network is insufficient as a reason to combine them. Such a reason is a generalization and is similar to the fact that most computers process data. Such a

rationale would be insufficient to combine references because such a reason is also a broad generalization. When these references are considered as a whole, they are directed towards different problems and different solutions.

For example, *Lo* is directed towards problems associated with scanners being located at remote systems and how images may bc created from a scanner from a remote system and transferred to a destination system. In contrast, *Hunt* is directed towards efficient transmission of images to different clients in which those different clients may use different formats or different capabilities. Thus, *Lo* is directed towards problems with users not having direct access to a scanner, while *Hunt* is directed towards problems with different capabilities at different clients for displaying images. Therefore, one of ordinary skill in the art would not be motivated to combine these references in considering the problems solved as part of considering these references as a whole.

Further, the solutions presented are entirely different. *Lo* is directed towards allowing an image file to be transferred from a scanner server having a scanner to a client without having the image file stored on a separate file server. In contrast, *Hunt* teaches a solution in which a fractal, compression, or progressive JPEG is used and portions or all of the data is sent, depending on the request from the client.

Therefore, one of ordinary skill in the art would not be motivated to combine these two references when they are considered as a whole. As a result, a combination of *Hunt* and *Lo* can only be made with an improper use of hindsight, with the use of applicants' invention as a template to piece together features from the prior art. Therefore, the rejection of claim 7 under 35 U.S.C. § 103 has been overcome.

III.   Objection to Claims

The examiner has stated that claims 8 and 9 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In response, the claims have been amended to overcome this objection.

IV.   New Claims 28 and 29

New claims 28 and 29 have been added to the application. These claims contain additional features not taught or suggested by *Hunt*. Specifically, claim 28 states that the data in the file for the image is processed to create a version of the image requested by the client. The data for this version is stored in a second file, which is then sent to the client. These features are not taught or suggested by *Hunt*.

V.   Conclusion

It is respectfully urged that the subject application is patentable over the cited references and is now in condition for allowance.

The examiner is invited to call the undersigned, at the below-listed telephone number, if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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